

Report Date: 02 Feb 2013

**Summary Report for Individual Task
113-305-1001
Communicate by a Tactical Radio
Status: Approved**

DISTRIBUTION RESTRICTION: Approved for public release; distribution is unlimited.

DESTRUCTION NOTICE: None

Condition: Given an operational radio (SINGARS), AN/PRC-119F Manpack, An/PYQ-10, Simple Key Loader or AN/CYZ-10,an operational distant station, TM 11-5820-890-10-8, TM 11-5820-890-10-3, FM 6-02.43 Signal Soliders Guide, FM 6-02.53 Tactical Radio Operations and unit SOI or ANCD with SOI data loaded. Standard MOPP conditions do not exist for this task. See the MOPP statement for specific conditions.

Standard: Secure communications check is conducted in Single Channel (SC) mode with a distant station.

Special Condition: None

Special Standards: None

Special Equipment:

Safety Level: Low

MOPP: N/A

Task Statements

Cue: None

DANGER
None

WARNING
None

CAUTION
None

Remarks: Need Mr Penn cooper to get TDC account.

Notes: None

Performance Steps

1. Obtain required CUE, MAN and SC frequencies.

a. CUE: 80.375 MAN: 80.175
CHAN 1: 79.925, CHAN 2: 79.675, CHAN 3: 80.975, CHAN 4: 81.425, CHAN 5: 82.075 CHAN 6: 82.575.

b. Prepare radio for Single Channel frequencies loading.

c. Set mode to SC.

d. Set FCTN to LD.

e. Set CHAN to CUE, MAN or Channel 1-6.

f. Set COMSEC to PT.

2. Load SC freqs.

a. Press FREQ.

b. Press CLR.

c. Enter 5 digit SC freqs.

d. Store SC freqs.

e. Press STO within 7 seconds.

3. Prepare to communicate.

a. Set FCTN to SQ ON.

b. Set CHAN to CUE, MAN or CHAN 1-6.

c. Communicate in SC, PT mode.

4. Prepare radio for offset freq.

a. Set FTCN switch to SQ ON.

b. Set CHAN to CUE,MAN, or CHAN 1-6.

5. Offset freq.

a. Press FREQ on radio keypad.

b. Press OFSDT on radio keypad.

c. Press CHG on radio keypad.

6. Perform radio check with NCS.

- a. Clear offset freq.
- b. Press FREQ on radio keypad.
- c. Press OFSDT on radio keypad.
- d. Press CHG on radio keypad.
- e. Press FREQ key.

7. Load COMSEC key.

- a. Prepare ANCD for transfer of COMSEC key.
- b. Turn ANCD on and Enter Radio; select COMSEC on ANCD.
- c. Enter TEK or KEK as desired and select key (name/number).
- d. Press CHG on radio keypad. The following options are displayed. 0, +5, -5, +10,-10.
- e. Enter COMSEC; select TEK or KEK on ANCD menu.

8. Transfer Key from ANCD to RT.

- a. Connect ANCD to RT using fill cable and arrow down on ANCD. Press LOAD on RT (You must clear the COMSEC alarm, beeping by keying the handset twice).
- b. Press RT LOAD/ STO/ X. NOTE: X represents channel COMSEC fill is to be stored in.
- c. Ensure FCTN is at LD and press down arrow. Press LOAD on RT.
- d. If you want to include time, Press YES. Press LOAD on RT.

9. Perform ICOM fill on the RT.

- a. Press [LOAD] button on RT key pad and observe. Transfer in progress (ANCD display).
- b. Note completion of ICOM fill data transfer. ICOM transfer successful (ANCD display).

10. Perform Cold Start Net Opening.

- a. Prepare radio to receive an ERF. Load MAN (SC) freq into RT.
- b. Load RT with COMSEC/FH data.
- c. Set FCTN to LD COMSEC to CT CHAN to MAN and MODE to FH. Display shows COLD radio is ready.

11. Receive and store ERF. Standby until NCS send ERF.

- a. Note Signal Display is activate. Display shows HF XXX on RT.

- b. Press STO. Display shows (STO___)
- c. Press channel # that you want (1-6) and display shows STO X and gives audio beep.
- d. Check communications. Set CHAN to X FCTN to SQ ON.
- e. Respond to NCS call. Cold start net opening is complete.

12. Perform Passive Late Net Entry.

- a. Note the lack of traffic on the net. Press FREQ on RT keypad. Radio display windows reads F XXX.
- b. Press SYNC on RT keypad. Kidsplay shows LF XXX.
- c. Wait to hear traffic on the net. DO NOT PRESS THE PTT SWITCH ON THE RADIO'S HANDSET. Note that the L disappears from the RT display. Your radio has brought you back into sync time. You are back in the FH net.

13. Perform CUE and ERF Late Net Entry (LNE).

- a. USE CUE and ERF method of NLE. Load CUE freq and MAN freq.
- b. Set COMSEC to PT. RT must be in PT to send CUE signal to NCS.
- c. Press PTT (handset) for 4 to 5 seconds. Set (at once) COMSEC to CT. NCS will answer in CT.
- d. Wait for answer. Repeat every 15 seconds until NCS answers. Press channel # that you want (1-6). The display shows STO X and gives audio beep.
- e. Request NCS send your station and ERF. Go to MAN channel when NCS directs.
- f. Receive and store ERF when sent. Respond to NCS call. Cold start net opening is complete.
- g. Re-enter the net. CUE & ERF LNE is complete.

14. Perform Hot Start net opening.

- a. Load RT with COMSEC/FH data/sync time. Perform ICOM fill. All 6 RT channels are loaded with COMSEC/FH/sync time.
- b. Enter the net. Call NCS in CT, FH and request to enter the net. Hot start net opening is complete.

15. Reloading Sync Time manually.

- a. Obtain running GPS time from ANCD or PLGR. Press TIME on RT. The radio display shows DD.
- b. Press CLR on RT. Display shows " _ _".
- c. Enter correct Julian Date (Refer to Appendix A, page A-3, TM 11-5820-890-10-8). Display shows "X X".
- d. Press STO on RT; the julian date is stored. Press Time on RT; display shows "HH MM".

e. Press CLR on RT keypad. Display shows " .

f. Enter GPS HH. Display shows "HH". Enter MM, a minute ahead of GPS time.

g. When RT and GPS time are the same (zero seconds), press STO on RT. Time should be same in RT as that of PLGR or ANCD. If time stored in RT is more than one second different from GPS time, reload sync time.

h. Manual loading of GPS sync time is complete. Enter back into FH hopping net.

16. Change Net ID.

a. Set FTCN to LD and Set CHAN to 1-6.

b. Enter new net ID in RT. Press [FREQ], Display shows "F XXX". Press [CLR], Display shows "F _ _ _ ". Enter new net ID (3 digits). Display shows "F XXX". Press [STO]. Display blinks; new net ID is now stored.

c. Resume normal communications. Return Mode to FH (if set to FH-M). Set FCTN to SQ ON. Set CHAN to 1-6 as desired.

d. Contact RT-B on F2 using RT-D.

e. Initiate RT-A to RT-B RXMT Comms. Install RXMT cable between RT-C and RT-D.

f. Set RT-C and RT-D FCTN switches to RXMT. Set RT-C MODE to FH. (RT-A continues to be the NCS on F1 linkage).

g. Set RT-D MODE to FH-M. (RT-D serves as NCS on F2; ensure RT-B is in FH).

h. Set RT-C and RT-D COMSEC to CT/PT. Request RT-A (NCS) call RT-B using RXMT setup. RXMT mission is now being performed.

(Asterisks indicates a leader performance step.)

Evaluation Preparation: Position the radio sets in different rooms or tents at least 70 feet apart. Obtain call signs, suffixes, and a radio frequency through the normal command chain. Select a message 15 to 25 words in length, containing some number groups such as map coordinates and times. Print the call signs for the sender and receiver, along with the message to be sent, on 5 x 8 cards. Perform a communications check to ensure operation of the radios. Provide an assistant with the call signs. If the soldier has not demonstrated sufficient program to complete the task within 5 minutes, give him/her a NO GO. This time limit is an administrative requirement, not a doctrinal one; so if the soldier has almost completed the task correctly, you may decide to allow him/her to finish.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Obtained required CUE, MAN and SC frequencies.			
2. Loaded SC frequencies.			
3. Prepared to communicate.			
4. Prepared radio for offset frequencies.			
5. Set Offset frequency.			
6. Performed radio check with NCS.			
7. Loaded COMSEC key.			
8. Transferred Key from ANCD to RT.			
9. Performed ICOM fill on the RT.			
10. Performed Cold Start Net Opening.			
11. Received and stored ERF.			
12. Performed Passive Late Net Entry.			
13. Performed CUE and ERF Late Net Entry (LNE).			
14. Performed Hot Start net opening.			
15. Reloaded Sync Time manually.			
16. Changed Net ID.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	(O)TM 11-5810-394-12&P	Operator and Unit Maintainer AN/CYZ-10 Automated Net Control Device	No	No
	113-25U10-0033	Signal Support Procedures for SINCGARS Radio Systems	No	No
	FM 6-02.53	Tactical Radio Operations	No	No
	TB 11-5820-890-23-149	FIELD INSTALLATION MANUAL FOR TACTICAL RADIO COMMUNICATIONS SYSTEM FOR THE LVAD (LOW VELOCITY AIR DROP) FO THE FAMILY OF MEDIUM TACTICAL VEHICLES(FMTV) SINCGARS LVAD (CURBSIDE/ROADSIDE) MK-3093/VRC (NSN 5895-01-569-7765)	No	No
	TB-11-5820-890-10-1	Operators Manual SINCGARS ICOM Ground Radios	No	No
	TM 11-5820-890-10-7	SINCGARS ICOM GROUND RADIOS USED WITH AUTOMATED NET CONTROL DEVICE (ANCD) AN/CYZ-10 AND PRECISION LIGHTWEIGHT GPS RECEIVER (PLGR) AN/PSN-11 NET CONTROL STATION (NCS) POCKET GUIDE RADIO SETS MANPACK RADIO	No	No
	UNIT SOI	Unit/Unit's Signal Operation Instructions (SOI)	No	No

Environment: Ensure lithium batteries are properly disposed (do not incinerate). Batteries must be disposed of by hazardous materiel personnel (References: 40 Code of Federal Regulations (pert #262), and TB 43-0134, Battery Disposition and Disposal).

Safety: In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines

IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination. e MANPACK antenna extends 1 foot above the radio set, therefore, there is a possibility of eye injury.

Prerequisite Individual Tasks : None

Supporting Individual Tasks :

Task Number	Title	Proponent	Status
113-587-2070	Operate SINCGARS Single-Channel (SC)	113 - Signal (Individual)	Approved
130-LDAC-4429	Communicate Via a Tactical Radio in a Secure Net	130 - Cadet Command	Analysis
171-121-1009	Construct Field Expedient Antennas	171 - Armor (Individual)	Approved
113-609-2052	Perform Net Control Station (NCS) Duties Using Automated Net Control Device (ANCD) AN/CYZ-10	113 - Signal (Individual)	Approved
113-587-2072	Operate SINCGARS Frequency Hopping (FH) Net Control Station (NCS)	113 - Signal (Individual)	Approved
113-587-2000	Operate Secure SINCGARS	113 - Signal (Individual)	Approved

Supported Individual Tasks :

Task Number	Title	Proponent	Status
171-COM-4080	Send a Spot Report (SPOTREP)	171 - Armor (Individual)	Approved

Supported Collective Tasks :

Task Number	Title	Proponent	Status
07-5-1397	Created from Template: Establish a Drop Zone for USAF Aircraft using Computed Air Release Point	07 - Infantry (Collective)	Analysis
07-5-1001	Created from Template: Conduct Surveillance	07 - Infantry (Collective)	Analysis
34-5-0342	Conduct Intelligence Team Pre-mission Activities	34 - Combat Electronic Warfare and Intelligence (Collective)	Approved
07-2-9002	Conduct a Bypass (Platoon-Company)	07 - Infantry (Collective)	Approved
07-5-1005	Created from Template: Conduct Scheduled Communications	07 - Infantry (Collective)	Analysis
07-5-1603	Created from Template: Mission Command a Long-Range Surveillance Unit (LSR)	07 - Infantry (Collective)	Analysis
07-2-9001	Conduct an Attack (Platoon-Company)	07 - Infantry (Collective)	Approved
07-2-9005	Created from Template: Conduct a Linkup (Platoon-Company)	07 - Infantry (Collective)	Analysis
07-5-1608	Created from Template: Operate a Base Radio Station	07 - Infantry (Collective)	Analysis
11-6-8009	Establish a Combat Network Radio Voice/Data Network	11 - Signal (Collective)	Approved
11-6-8010	Maintain a Combat Network Radio Voice / Data Network	11 - Signal (Collective)	Approved
11-6-7300	Conduct Signal Company Operations Section Activities (Strat Sig Co)	11 - Signal (Collective)	Approved
07-5-1201	Created from Template: Acquire a Target	07 - Infantry (Collective)	Analysis
07-5-1398	Created from Template: Establish a Drop Zone for USAF Aircraft using Ground Marked Release Point	07 - Infantry (Collective)	Analysis
11-4-8142	Conduct Signal Company Operations Section Activities (Strat Sig Co)	11 - Signal (Collective)	Reviewed

ICTL Data :

ICTL Title	Personnel Type	MOS Data
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13R - Field Artillery Firefinder Radar Operator - SL1	Enlisted	MOS: 13R, Skill Level: SL1, ASI: P5, Duty Pos: EBE, LIC: EN, SQI: O
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